

What Is Claimed Is:

1. A method for performing a functional diagnosis on a ventilation system of a crankcase of an internal combustion engine, a valve in a vent line releasing, in the case of a closed ventilation system, vapors into an intake pipe of the engine in response to a predefined pressure threshold being reached, the vapors being fed together with intake air to a combustion chamber of the engine, the method comprising:

determining at least one of an oil pressure and a change in pressure in the crankcase using a pressure sensor and providing a signal indicative thereof; and closing the valve as a function of the signal of the pressure sensor for a predefined time period, the valve being an electrically controllable pulse valve.

2. The method according to claim 1, further comprising:

changing a closing time of the pulse valve as a function of at least one operating parameter, the at least one operating parameter including at least one of an oil level, a temperature, an engine speed, a load, at least one environmental parameter, an operating time, and an engine type.

3. The method according to claim 2, further comprising:

controlling the pulse valve as a function of the load and the engine speed of the engine; and extending a ventilation phase in response to one of a high engine speed and a small load.

4. The method according to claim 1, further comprising:

controlling the pulse valve as a function of an operating mode, in the case of one of a stratified operation and a homogenous operation.

5. The method according to claim 1, further comprising:

controlling the pulse valve such that predefined pressure values are maintained in the crankcase.

6. The method according to claim 5, wherein the predefined pressure values are 50 to 150 mbar.
7. The method according to claim 2, further comprising:
 - determining a value for the oil level in the crankcase with a predefined time span, from a characteristic curve of a pressure measured by the pressure sensor.
8. The method according to claim 1, further comprising:
 - deducing a seal tightness of the ventilation system within a predefined time span, from the change in pressure measured by the pressure sensor.
9. The method according to claim 1, further comprising:
 - controlling a heater for the vent line as a function of the signal of the pressure sensor.
10. The method according to claim 1, further comprising:
 - assessing engine wear as a function of the signal of the pressure sensor.
11. The method according to claim 1, wherein the method is used for an internal combustion engine having a turbo-charger.